

# Work Order ID 86663

\*86663\*

Page 1

July-06-12 11:18:05 AM

Item ID: D2896-1 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Support  
 Start Date: 7/06/12 Start Qty: 12.00 \*12\* Cust Item ID:  
 Required Date: 8/03/12 Req'd Qty: 12.00 \*12\* Customer:  
 Reference:

Approvals: Process Plan:      Date: 12-07-12 Tooling:      Date:      Run Start \*NR1\*  
 QC:      Date:      SPC (Y/N):      Date:      Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D2896	C								
100	HAAS CNC VERTICAL MACHINING #1	0.00							
*100*									
HAAS 1	Memo	0.00							
HAAS CNC vertical machine #1	Machine as per Folio FA167 Folio Rev: <u>AA</u> Dwg Rev: <u>C</u>								
	Deburr								
	****Program Batch #*****								
110	QC1- Inspect dimensions to dimension sheet	0.00							
*110*									
QC	Memo	0.00							
Quality Control									

DA 12/08/31  
 CRK 12/09/01

CRK 12/09/01

12 0

12 0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 86663

\*86663\*

Page 2

July-06-12 11:18:05 AM

Item ID: D2896-1 Accept \*N900040100\* Setup Start \*NS1\*  
Revision ID: Stop \*NS2\*  
Item Name: Support  
Start Date: 7/06/12 Start Qty: 12.00 \*12\* Cust Item ID:  
Required Date: 8/03/12 Req'd Qty: 12.00 \*12\* Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC8- Inspect parts - second check	0.00							
*120*						12	+		
QC	Memo	0.00							
Quality Control									
130	Identify as per dwg & Stock Location: <u>LG</u>	0.00							
*130*									
Packaging	Memo	0.00							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
*140*									
QC	Memo	0.00							
Quality Control									

12/9/10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

July-06-12 11:18:04 AM

Page 1

Work Order ID: 86663

Parent Item: D2896-1

Parent Item Name: Support

Start Date: 7/06/12

Required Date: 8/03/12

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP: B02.11.26Reformat; Added P/O; Added mask holeKJ  
IPP Rev:C As per Rev B 07-04-16 JLM  
IPP D 08.03.19 Re-format EC verified by DD  
REV:C DD VERF:EC

IPP REV:E 11.10.03 ASPER

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

DSK080  
D2896-1 TURNING DETAIL

Manufactured No

100 Each 12.0000 0.5

<sup>6</sup>  
b. 12/08/31

Location

Loc Qty

Loc Code

MAT060

12

→ 73927

4

82953

8

3

89632 X 3

OK 12/09/01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD		Work Order: 86663
Description: Support		Part Number: D2896-1
Inspection Dwg: D2896	Rev: <del>B</del> C	Page 1 of 1

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article ☐ Prototype

				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
HAAS Section								
AA	2.152	2.172			2.157	2.160	2.158	2.158
AB	2.340	2.360			2.351	2.351	2.352	2.352
AC	3.550	3.560			3.555	3.555	3.555	3.555
AD	3.770	3.790			3.780	3.780	3.779	3.780
AE	0.065 x 0.315	0.085 x 0.335			0.075 x 0.325	0.075 x 0.330	0.075 x 0.331	0.075 x 0.330
AF	1.42	1.48			1.450	1.448	1.450	1.448
AG	0.833	0.853			.850	.844	.846	.843
AH	0.240	0.260			.250	.250	.250	.250
AI	0.261	0.266			.262	.262	.262	.262
AJ	0.189	0.194			.192	.192	.192	.192
AK	<del>1.990</del> 1.970	<del>2.010</del> 2.030	Per Rev. C		2.001	2.000	2.003	2.000
AL	0.625	0.630			.6256	.6256	.626	.626
AM	101.75	105.75			103.75	103.75	103.75	103.75
AN	0.053	0.073			.063	.063	.063	.063
AO	0.926	0.946			.942	.942	.943	.943
AP								
AQ								
AR								
Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"								
Accept/Reject					.0015	.001	.002	.0005

Measured by: <i>ML</i>	Date: 12/09/01
Audited by: <i>ML</i>	Date: 12-2-9
Prototype Approval:	Date:

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	<i>[Signature]</i>

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	86663
<b>Description:</b> Support		<b>Part Number:</b>	D2896-1
<b>Inspection Dwg:</b> D2896	<b>Rev:</b> <i>B C</i>		<b>Page 1 of 1</b>

**FIRST ARTICLE INSPECTION DIMENSION SHEET**

☒ **First Article**
☐ **Prototype**

Dim	Min	Max	Go/No Go Gauge	Record Actual Dimensions				
				1	25	86	47	88
<b>HAAS Section</b>								
AA	2.152	2.172			2.162	2.163	2.163	2.159
AB	2.340	2.360			2.357	2.352	2.350	2.350
AC	3.550	3.560			3.554	3.554	3.552	3.553
AD	3.770	3.790			3.778	3.778	3.778	3.778
AE	0.065 x 0.315	0.085 x 0.335			0.072 x 0.320	0.070 x 0.315	0.070 x 0.315	0.073 x 0.320
AF	1.42	1.48			1.445	1.448	1.448	1.445
AG	0.833	0.853			0.846	0.844	0.843	0.845
AH	0.240	0.260			0.250	0.250	0.250	0.250
AI	0.261	0.266			0.262	0.262	0.262	0.262
AJ	0.189	0.194			0.191	0.191	0.191	0.191
AK	1.990 (1.97)	2.010 (2.03)			2.002	1.998	2.007	2.000
AL	0.625	0.630			0.626	0.626	0.625	0.626
AM	101.75	105.75			103.75	103.75	103.75	103.75
AN	0.053	0.073			0.063	0.063	0.063	0.063
AO	0.926	0.946			0.941	0.942	0.942	0.942
AP								
AQ								
AR								
<b>Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"</b>								
<b>Accept/Reject</b>					0.004	0.0045	0.0025	0.001

**Measured by:** *CM* **Date:** 12/09/02

**Audited by:** *SP* **Date:** 12-8-9

**Prototype Approval:** **Date:**

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	



<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 76603
<b>Description:</b> Support		<b>Part Number:</b> D2896-1
<b>Inspection Dwg:</b> D2896	<b>Rev:</b> <i>PC</i> <i>DEF</i>	<b>Page 1 of 1</b>

### FIRST ARTICLE INSPECTION DIMENSION SHEET

☒ First Article
 ☐ Prototype

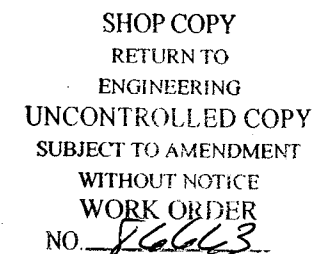
				Record Actual Dimensions				
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	5
<b>HAAS Section</b>								
AA	2.152	2.172			2.158	2.161	2.159	2.161
AB	2.340	2.360			2.351	2.353	2.355	2.355
AC	3.550	3.560			3.555	3.555	3.554	3.554
AD	3.770	3.790			3.778	3.779	3.778	3.779
AE	0.065 x 0.315	0.085 x 0.335			0.075 x 0.325	0.075 x 0.325	0.075 x 0.325	0.075 x 0.325
AF	1.42	1.48			1.448	1.446	1.450	1.450
AG	0.833	0.853			0.847	0.845	0.842	0.845
AH	0.240	0.260			0.250	0.250	0.250	0.250
AI	0.261	0.266			0.262	0.262	0.262	0.262
AJ	0.189	0.194			0.191	0.191	0.191	0.191
AK	1.990	2.010			1.998	1.992	2.004	1.999
AL	0.625	0.630			0.6257	0.6256	0.6257	0.6257
AM	101.75	105.75			103.75	103.75	103.75	103.75
AN	0.053	0.073			0.063	0.063	0.063	0.063
AO	0.926	0.946			0.942	0.942	0.941	0.943
AP								
AQ								
AR								
<b>Ensure that Ø0.625" bore is perpendicular to 1.764" bore within 0.005"</b>								
<b>Accept/Reject</b>					0.0035	0.003	0.0035	0.001

**Measured by:** *MR* **Date:** 12/09/02

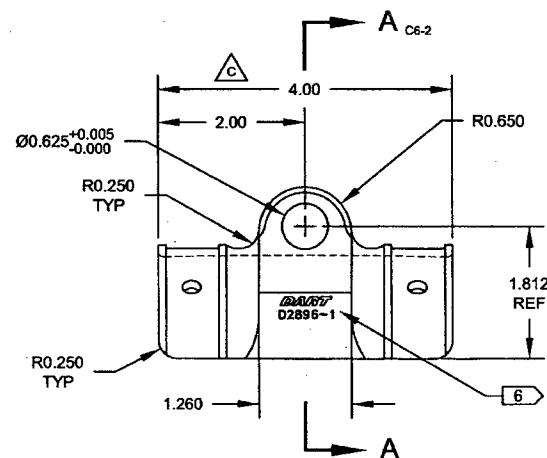
**Audited by:** *RP* **Date:** 12-2-9

**Prototype Approval:** **Date:**

Rev	Date	Change	Revised by	Approved
A	02.12.13	New Issue	KJ/RF	
B	04.05.27	Dimension AE changed	KJ/RF	
C	06.11.22	Note added to HAAS section	KJ/JLM	
D	07.04.16	Dimsheet updated per Dwg Rev. B	KJ/JLM	
E	08.04.22	Reformat	KJ/JLM	



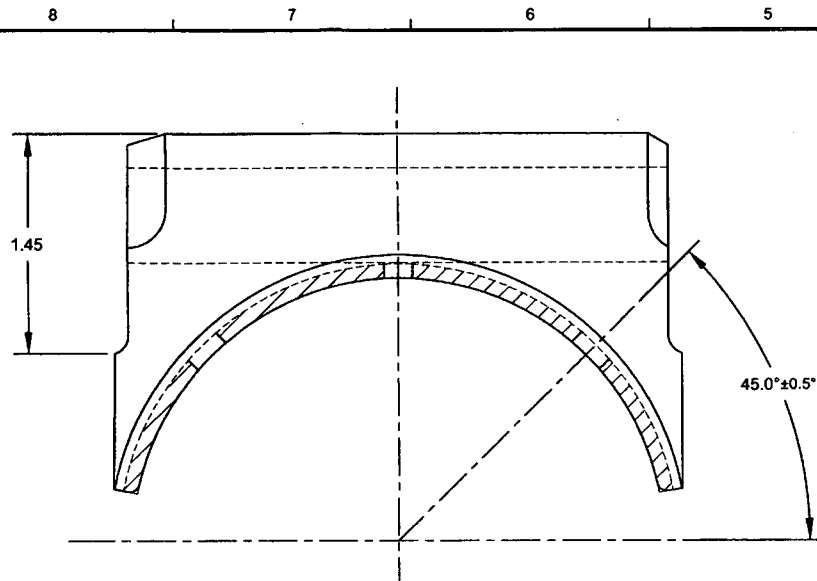
RELEASED  
2011-09-29



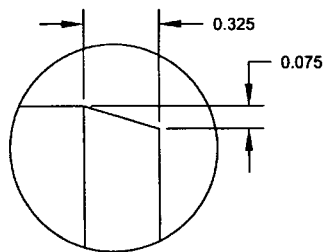
**NOTES:**

- 1) MATERIAL: 17-4 PH STAINLESS STEEL, H900 OR H925 CONDITION  
PER ASTM A564 OR AMS 5643 OR AISI 630  
MIN UTS = 170 KSI (38 HRc)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: DART LOGO AND P/N WITH 0.125 HIGH LETTERING 0.010-0.020 DEEP PER DART QSI 044 6.3
- 7) WEIGHT: 1.76 lbs

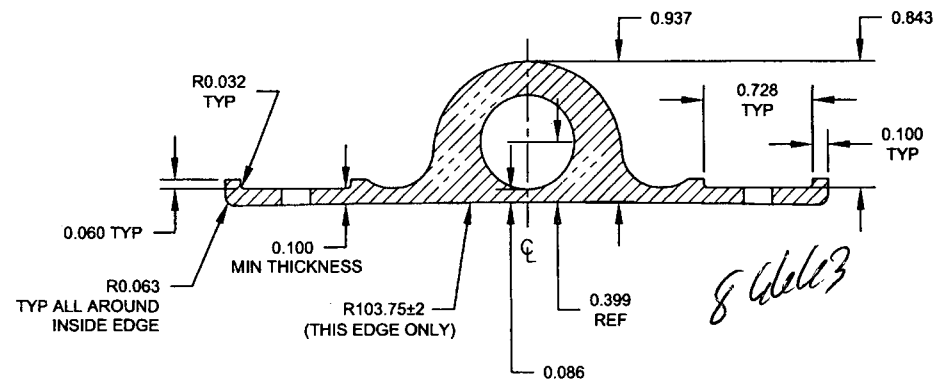
C	RMV FINISH & UPDATE MAT'L SPEC (A8-1), 2.00 WAS 2.000, 4.00 WAS 4.000 (C4-1), REFORMAT DWG	CP	11.09.07
B	INCORP. A1-A4, FINISHING NOTES	PH	07.03.19
A	NEW ISSUE	CP	01.10.19
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESSBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV.
MFG. APPR.		D2896	SHEET 1 OF
APPROVED		TITLE	SCALE
DE APPR.		SUPPORT	NT
DATE	11.09.07	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS BURNED ON THE COPYRIGHTED CONDITION THAT IT NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD	



**SECTION A-A** C3-1  
TOOLING HOLE DETAIL  
SCALE 2X



**DETAIL C** C6-1  
SCALE 4X



**SECTION B-B** D3-1  
SCALE 2X

**RELEASED**  
2011-09-29

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D2896	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		SUPPORT	NTS
DATE	11.09.07	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	